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"Application to Patent"

APPLICATION OF CECIL T. POUNDERS, JR.

For: ILEX HYBRID PLANT NAMED 'XIA YEN'

## SUMMARY OF THE INVENTION

My invention is a unique ornamental type of *Ilex* selected by me from a second generation group of open-pollinated seedlings of *Ilex X attenuata* (*I. opaca* X *I. cassine*).

My goal was to select a tough ornate shrub combining *I. cassine's* fine leaf texture and uniform branching with *I. opaca's* better leaf color and tolerance of cold and moisture stress. This invention incorporates the desired traits from the original species differentiating it from all other forms of *Ilex* of which I am aware. The new clone has been named the Xia Yen variety.

The variety exhibits the following combination of traits:

- (a) lustrous evergreen leaves intermediate in texture between leaves of the two parental species,
- (b) balanced, vigorous pyramidal crown without extensive shearing due to strong apical dominance,
- (c) annual crops of bright red fruit in early fall which remain until spring,
- (d) environmental tolerances equivalent to *I. opaca*.

Xia Yen was selected as a superior replacement for *Ilex X attenuata* 'Foster #2' (unpatented), a holly selection extensively planted in the southern United States. Under production

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conditions Xia Yen is self-branching with strong apical dominance which reduces production cost when compared to Foster holly while in landscapes Xia Yen displays superior leaf color and more symmetric branching. Xia Yen resembles Foster #2 Holly's leaf texture and crown shape more than Xia Xiang (U.S. Plant Patent No. 10526) and Huo Yen (U.S. Plant Patent No. 11,741) Hollies do.

My new variety, Xia Yen, has been asexually propagated by soft-wood cuttings at Mobile, Decatur and Loxley, Alabama. Propagules demonstrated that the distinctive combination of characteristics are fixed and reproduce true to type to successive generations.

Xia Yen is being marketed bearing the DIXIE STAR HOLLY trademark.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs show typical plants of my new variety of Ilex during fall and early winter as depicted in color as true as is reasonably possible to make the same in color photographs of the character. The specimens illustrated were being grown in the ground at Decatur, AL and in nursery containers at Loxley, AL.

FIG. 1 illustrates shape, size and color of fruit and

foliage,

FIG. 2 illustrates plant uniformity under nursery conditions.

#### DETAILED DESCRIPTION

The following is a detailed description of my new variety of *Ilex* made from observation of 7 year old plants growing in the ground at Baldwin County, Al. Color terminology is in accordance with the R.H.S. Colour Chart of the Royal Horticultural Society, London, England.

Class: *Ilex* X *attenuata*

Parentage: Unknown

Foliage:

Type.-Evergreen, glossy, coriaceous. Leaves elliptic-lanceolate, serrate with minute spine-tipped teeth; Bases narrowly tapered, apices acute.

Size.-leaf size is affected by environmental factors such as light intensity and plant nutrition.

Leaf size ranges from 4-6 cm long and 1-2 cm wide.

Petiole.-Ranges from 7 to 9 mm in length, grooved, color

Greyed Red Group 178B.

Color.- Upper surfaces of mature leaves are closest to  
Green Group 137A; lower surface Green Group 138B.

Stems:

Size.-Stem length, width and internode length are under  
strong environmental control, increasing with favorable  
fertility and moisture or decreased light.

Color.-On new growth stems are Greyed Purple 187A, maturing  
to Greyed Green Group 197A. Bark on trunks and branches  
is Black Group 202D.

Inflorescence and Fruit:

Flowers.- Pistillate, usually solitary in leaf axils or at  
nodes just below leaves on initial spring growth;  
sepals 4, petals 4; colored Orange White Group 159D on both  
surfaces. All other floral morphology such as petal and  
sepal shape, length, width and margins has been observed to  
be typical of *Ilex X attenuata*.

Fruit.-Drupe containing 4 woody pyrenes; ellipsoid;  
approximately 8 to 11mm in diameter.

Fruit color.- Dull to semi-glossy, Red Group 46B.

#### Plant growth characteristics:

Plants have a slender conical growth habit with seven-year individuals growing to roughly 3 m in height and 1 m in width. Without pruning, growth slows but continues proportionally with 15 year individuals generally in the range of 4 to 6 m in height, 1.5 to 2.5 m in width, and main trunk diameter of 4 to 8 cm depending on growing conditions such as moisture, soil fertility and light intensity to which 'Xia Yen' is exposed during growth. Branching is symmetrical without extensive pruning with plants establishing a dominant central trunk. Xia Yen produces adequate annual crops of colorful red berries but does not fruit as heavily as Huo Yen holly. This variety's merit is a unique combination of lustrous dark green leaves and red fruit in combination with superior plant form.

#### Environmental tolerance:

Testing to date indicates that Huo Yen successfully combines textural qualities of *Ilex cassine* with the environmental adaptations of *Ilex opaca*. This new variety is adapted to the same landscape conditions and climatic range associated with *I. opaca*. Parental species have the same pest problems thus no improved pest tolerance has been observed.